EXHIBIT 4

FILED UNDER SEAL

1   UNITED STATES DISTRICT COURT

2   FOR THE NORTHERN DISTRICT OF CALIFORNIA

3   --x

     SONOS, INC.,

4

                   Plaintiff,

5   vs.   Case No. 3:21-CV-07559-WHA

6   GOOGLE LLC,

                   Defendant.

7   --x

8   -AND-

9   --

10   UNITED STATES DISTRICT COURT

11   FOR THE NORTHERN DISTRICT OF CALIFORNIA

12   --x

13   GOOGLE LLC,

14   Plaintiff,

15   vs.   Case No. 3:20-CV-06754-WHA

16   SONOS, INC.,

                   Defendant.

17   --x

18   *HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY*

19

20   REMOTE VIDEOTAPED DEPOSITION BY VIRTUAL ZOOM OF

21   DOUGLAS SCHMIDT

22   Thursday, February 2, 2023

23

24   Reported By: Lynne Ledanois, CSR 6811

25   Job No. 5686109

                                              Page 1

1   A   Let's see. The devices that I tested for   12:22PM
2 this -- the tests that I mention here were the ones
3 that are described in the Section 9 entitled "Overview
4 of Testing" appearing towards the bottom of Page 31.
5   Q   Okay. And it's your opinion that you   12:23PM
6 don't need to test every one of the accused devices
7 in order to provide an infringement opinion; is that
8 right?
9   A   Let's see where I say that. I'm not sure if
10 I say that but --   12:23PM
11   Q   I'm just asking for your opinion.
12   Do you need to test every single accused
13 device in order to render an opinion regarding the
14 infringement or non-infringement of the accused
15 YouTube application?   12:23PM
16   A   So based on the material in Paragraph 110
17 that we talked about before, it's my understanding,
18 based on the documents I reviewed, the testimony that
19 I read from various Google witnesses in this case that
20 there is no relevant functionality of the -- no   12:24PM
21 relevant functional differences between the different
22 OS versions and there's also no relevant differences
23 between the functionality of the accused casting and
24 stream transfer technologies within the period that we
25 were discussing here, which was September 2020.   12:24PM

Page 122

1 provided by a cloud-based computing system   12:26PM
2 associated with a cloud-based media service'."
3   Do you see that?
4   A   I do.
5   Q   Is that still your opinion?   12:26PM
6   A   I believe so. I talk about that in more
7 detail in -- hold on a second. I show other examples
8 of this in other parts of my other reports.
9   Q   But I guess my question: So that's still
10 your opinion, though; right?   12:26PM
11   A   Right. As I say, in my reply report in
12 Paragraph 49 I show some -- a nice example of this
13 where there is a sort of a projection or subset or
14 window of sections of the Watch Next queue which is
15 available on the YouTube Sender, but that's just a   12:27PM
16 projection from the actual Watch Next queue that I
17 reference in other parts of my report referring to the
18 remote playback queue.
19   Q   Can a device that stores a local playback
20 queue also be configured for a playback of a remote   12:27PM
21 playback queue?
22   MR. LEE: Objection, form.
23   THE WITNESS: I'm not sure what you mean.
24 BY MR. HEFAZI:
25   Q   So if a user device stores a local   12:27PM

Page 124

1   So based on that, I have not seen Google   12:24PM
2 claim that there's differences between the different
3 devices, so I don't believe that I would have to
4 test each and every one of them in order to find the
5 same behavior.   12:24PM
6   Q   Okay.
7   A   Relative to the infringement claims that are
8 at issue in this case. There could be other
9 differences that are unrelated to the infringement
10 claims.   12:25PM
11   Q   Okay. Let's go back to opening report --
12 your opening report.
13   A   Okay.
14   Q   If you -- this is Exhibit 2. If you can
15 go to Paragraph 480.   12:25PM
16   A   I'm there.
17   Q   You say in this paragraph, I'm looking at
18 the third sentence, "just because a sender device
19 might maintain a local copy of a queue does not
20 necessarily mean that there is not also" -- sorry,   12:25PM
21 strike that. Let me read this again.
22   You say in Paragraph 480 of your opening
23 report, "just because a sender device might maintain
24 a local copy of a queue does not necessarily mean
25 that there is not also 'a remote playback queue   12:26PM

Page 123

1 playback queue, can it also be configured for   12:27PM
2 playback of a remote playback queue?
3   MR. LEE: Same objection.
4   THE WITNESS: Well, again, I think that
5 that is -- I think that's explained or shown in more   12:27PM
6 detail on Paragraph 49 in my reply report which
7 demonstrates a scenario where there is a YouTube
8 Sender -- this is based on Google's documents, where
9 a YouTube Sender initiates playback from a long
10 playlist in which the sender has to make multiple   12:28PM
11 calls to the Watch Next cloud server, part of the
12 Watch Next queue as I refer to in my reports, to
13 obtain windows or sections of the Watch Next queue.
14   And the diagram there basically shows I
15 think as an example where there is a sort of a local   12:28PM
16 portion of this queue that's on the client device,
17 the sender, and that's being fed by making calls to
18 the Watch Next -- Watch Next request and the
19 GetWatchNext responses and so on that are taking
20 place here to allow the remote playback queue to   12:29PM
21 present an endless set of videos which are then
22 provided back to the client as a subset of that
23 overall -- as windows into the overall queue.
24 BY MR. HEFAZI:
25   Q   Okay. So just to summarize, I think your   12:29PM

Page 125

32 (Pages 122 - 125)

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

1   A   I'm there.   12:35PM
2   Q   Do you see it says, "the Sender's local
3   queue is loaded with one or more 'video IDs' for the
4   initial user-selected media item or collection of
5   media items and one or more video IDs for   12:36PM
6   service-recommended items seeded by the initial user
7   selection." Correct?
8   A   I see what it says, yes.
9   Q   The sender refers to a user device with an
10   accused YouTube application; right?   12:36PM
11   A   So I think the discussion here on --
12   starting on Paragraphs 127 is materially the same to
13   the paragraphs I pointed you to earlier when you first
14   asked me this line of questioning, which appeared on
15   Paragraph 49 in my reply report.   12:36PM
16   This is showing the projection or window I
17   think it was called. You look at the figure at the
18   top of Page 38, it's showing how these are a window
19   or a subset of the contents that are being
20   downloaded from the remote playback queue.   12:37PM
21   I don't think I used the word "local
22   playback queue" here. I think I referred to it as a
23   local queue that's, as described in Paragraph 129,
24   loaded with one or more video IDs for the initial
25   user-selected media.   12:37PM

Page 130

1   And then I talk about how that's updated   12:37PM
2   over time using various techniques.
3   Q   So the accused YouTube applications store
4   a local VQ on the mobile device; correct?
5   MR. LEE: Objection to form.   12:37PM
6   THE REPORTER: Nima, did you say "VQ,"
7   Victor?
8   MR. HEFAZI: I don't actually remember.
9   Let me rephrase and reask the question.
10   Q   A user device running the accused YouTube   12:38PM
11   applications loads its local queue with items from a
12   YouTube server; right?
13   MR. LEE: Objection to form.
14   THE WITNESS: So what is -- what is shown
15   here in the discussion on Pages 37 and 38 starting   12:38PM
16   roughly around Paragraph 120 and continuing down to
17   include Paragraph 129, based on the diagram from the
18   Google documentation, the sender's local queue,
19   which is the YouTube application, is often loaded
20   with one or more video IDs for the initial   12:38PM
21   user-selected media item or a collection of media
22   items.
23   And then also one or more video IDs for
24   service-recommended items seeded for the initial
25   selection.   12:39PM

Page 131

1   That's basically what's shown in the   12:39PM
2   diagram. And it's showing how the calls have to go
3   back to the cloud to the Watch Next queue in order
4   to obtain the next round of elements.
5   BY MR. HEFAZI: 12:39PM
6   Q   Can a device be configured for play back
7   of a remote playback queue and a local playback
8   queue at the same time?
9   A   Again, I'm not sure if I've offered an
10   opinion in the context of the '033 patent as it   12:39PM
11   relates to local playback queue versus remote playback
12   queue.
13   I think as I've said, there is a remote
14   playback queue as I've identified a number of times
15   which is the so-called Watch Next queue as I talk   12:39PM
16   about in Paragraph 128.
17   And there's also this thing that the
18   YouTube sender has, which is a local queue, which is
19   loaded with video IDs it obtains from the remote
20   playback queue, the Watch Next queue.   12:39PM
21   Q   So you don't have an opinion about whether
22   a device can be configured for playback on a local
23   playback queue and a remote playback queue at the
24   same time; is that right?
25   A   I don't recall having an opinion on that.   12:40PM

Page 132

1   If you can point me to somewhere in my report that   12:40PM
2   uses those terms, I'll be happy to take a look at it.
3   But I think as I mentioned when we first
4   started talking about this, the material related to
5   that diagram, which again also occurs in my reply   12:40PM
6   report, demonstrates what I think I'm describing
7   here about how there is a remote playback queue,
8   which is the Watch Next queue, which is then used
9   to -- it's loaded with some window or some view into
10   the remote playback queue.   12:40PM
11   Q   Can a device be configured to play back
12   both a local queue and a remote playback queue at
13   the same time?
14   MR. LEE: Objection, form.
15   THE WITNESS: I'm not sure what you mean   12:41PM
16   by that. Sorry, go ahead.
17   BY MR. HEFAZI:
18   Q   You said that the accused YouTube
19   application had a local queue; right?
20   A   I think I show some examples of diagrams   12:41PM
21   here from Google documentation that shows the way in
22   which this works in general.
23   Q   Okay. And so in your opinion, is the user
24   device configured to play back its local queue?
25   A   Again, I'm not sure how you're using the   12:41PM

Page 133

34 (Pages 130 - 133)

1 showdown, the court disagreed with your   12:52PM
2 interpretation of the term "playback queue" and your
3 infringement opinions?
4   A   So it's my understanding that there is a
5 court order that's at issue in the '033 patent, which 12:52PM
6 is what I've referred to a couple of times, about what
7 constitutes a playback queue.
8   And that's the -- that's the construction
9 that I have been applying in the context of the '033
10 patent. So, yes, I'm aware of that.   12:53PM
11   Q   Let's go to Exhibit 2 real quick. And
12 then we can take a break. But I have a couple of
13 just final questions here.
14   In Exhibit 2, you have a section called
15 "Claim Construction" starting at Paragraph 112.   12:53PM
16   A   All right. Let me go there.
17   Yes, I see that.
18   Q   Does this section describe all of the
19 requirements of a playback queue under the court's
20 construction?   12:53PM
21   A   My opening report describes all the sections
22 that the court has ordered construe or involve a
23 playback queue. As to whether that particular section
24 describes them all, I'm not sure.
25   But the body of the corpus, the entirety   12:54PM

Page 142

1 of my opening report does indeed address all four of   12:54PM
2 the playback queue characteristics that were ordered
3 by the court.
4   Q   Do you mention any of those four
5 characteristics in your section on claim   12:54PM
6 construction here in the opening report?
7   A   Again, I don't recall whether I mentioned
8 them in that section. But they appear throughout the
9 opening report.
10   Q   Did you say anywhere in the opening report   12:54PM
11 that the term "playback queue" has an additional set
12 of characteristics?
13   A   Again, as I describe the characteristics of
14 a playback queue throughout my analysis in my opening
15 report, I touch on all four of the characteristics   12:55PM
16 that are put forth in the court's order.
17   Q   My question is a little bit different.
18   Did you -- at any point in your opening
19 report, can you point me to anywhere where you
20 stated that the court's construction of playback   12:55PM
21 queue required those four characteristics that you
22 identified in your rebuttal and reply reports?
23   A   Again, as I mentioned a couple of times now,
24 the characteristics that the court put forth in the
25 order are contained in various places in my opening   12:55PM

Page 143

1 report, the opening report covers them.   12:55PM
2   And at the time of the opening report, I
3 was not really aware that Dr. B was going to try to
4 come up with different interpretations of playback
5 queue that were inconsistent with the court's order.   12:56PM
6   So when I discovered that after reading
7 his opening report, which of course I didn't have
8 before I served my opening report, then I was more
9 explicit in reiterating what the court's order was
10 and making it clear why I thought he was not   12:56PM
11 being -- he was not conforming to those
12 characteristics.
13   But those characteristics are indeed
14 embodied in my analysis in my opening report.
15   MR. HEFAZI: Okay. Let's take a break for   12:56PM
16 lunch.
17   THE VIDEOGRAPHER: We're off the record.
18 It's 12:56 p.m.
19   (Recess taken.)
20   THE VIDEOGRAPHER: We're back on the   1:33PM
21 record. It's 1:33 p.m.
22 BY MR. HEFAZI:
23   Q   Now, Dr. Schmidt, the court construed the
24 term "playback queue" as a list of multimedia
25 content selected for playback; is that correct?   1:34PM

Page 144

1   A   That's correct, with some other   1:34PM
2 characteristics that we were talking about earlier.
3   Q   Okay. And we'll get to those in a second.
4   But to start, you stated for purposes of
5 the '033 patent that you will be interpreting the   1:34PM
6 court's construction as a list of one or more media
7 items selected for playback; correct?
8   A   So I think I noted this in my opening
9 report, but in my reply report I also mention that the
10 '033 patent claims don't recite the term "multimedia   1:34PM
11 content" as the -- as opposed to the '615 patent
12 claims which did use the word "multimedia content."
13   So the '033 patent claims talk about a
14 media item and, therefore, I interpreted the court's
15 construction of playback queue, which is provided in   1:35PM
16 the context of Claim 13 in the '615 patent, as a
17 list of one or more media items selected for
18 playback.
19   However, as I also talk about in
20 Paragraph 112 of my reply report, my opinions would   1:35PM
21 remain the same under the exact construction of
22 playback queue provided in the context of Claim 13
23 in the '615 patent.
24   And that's because a POSITA would
25 understand that "multimedia content" is synonymous   1:35PM

Page 145

37 (Pages 142 - 145)

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

1   I, LYNNE M. LEDANOIS, a Certified
2 Shorthand Reporter of the State of California, do
3 hereby certify:
4   That the foregoing proceedings were taken
5 before me at the time and place herein set forth;
6 that a record of the proceedings was made by me
7 using machine shorthand which was thereafter
8 transcribed under my direction; that the foregoing
9 transcript is a true record of the testimony given.
10   Further, that if the foregoing pertains to
11 the original transcript of a deposition in a Federal
12 Case, before completion of the proceedings, review
13 of the transcript [] was [x] wasn't requested.
14   I further certify I am neither financially
15 interested in the action nor a relative or employee
16 of any attorney or party to this action.
17   IN WITNESS WHEREOF, I have this date
18 subscribed my name.
19 Dated: February 4, 2023
20
21
22
23

Lynne Marie Ledanois
LYNNE MARIE LEDANOIS
24   CSR No. 6811
25

Page 290

---

1 __ Federal R&S Requested (FRCP 30(e)(1)(B)) – Locked .PDF
2   Transcript - The witness should review the transcript and
3   make any necessary corrections on the errata pages included
4   below, noting the page and line number of the corrections.
5   The witness should then sign and date the errata and penalty
6   of perjury pages and return the completed pages to all
7   appearing counsel within the period of time determined at
8   the deposition or provided by the Federal Rules.
9 _x_ Federal R&S Not Requested - Reading & Signature was not
10   requested before the completion of the deposition.
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Page 292

---

1 NIMA HEFAZI, ESQ.
2 nimahefazi@quinnemanuel.com
3   February 4, 2023
4 RE: SONOS, INC. vs. GOOGLE LLC
5 February 2, 2023, DOUGLAS SCHMIDT, JOB NO. 5686109
6 The above-referenced transcript has been
7 completed by Veritext Legal Solutions and
8 review of the transcript is being handled as follows:
9 __ Per CA State Code (CCP 2025.520 (a)-(e)) – Contact Veritext
10   to schedule a time to review the original transcript at
11   a Veritext office.
12 __ Per CA State Code (CCP 2025.520 (a)-(e)) – Locked .PDF
13   Transcript - The witness should review the transcript and
14   make any necessary corrections on the errata pages included
15   below, noting the page and line number of the corrections.
16   The witness should then sign and date the errata and penalty
17   of perjury pages and return the completed pages to all
18   appearing counsel within the period of time determined at
19   the deposition or provided by the Code of Civil Procedure.
20 __ Waiving the CA Code of Civil Procedure per Stipulation of
21   Counsel - Original transcript to be released for signature
22   as determined at the deposition.
23 __ Signature Waived – Reading & Signature was waived at the
24   time of the deposition.
25

Page 291

---

1 SONOS, INC. vs. GOOGLE LLC
2 DOUGLAS SCHMIDT (#5686109)
3   E R R A T A S H E E T
4 PAGE_____ LINE_____ CHANGE_____
5 _____
6 REASON_____
7 PAGE_____ LINE_____ CHANGE_____
8 _____
9 REASON_____
10 PAGE_____ LINE_____ CHANGE_____
11 _____
12 REASON_____
13 PAGE_____ LINE_____ CHANGE_____
14 _____
15 REASON_____
16 PAGE_____ LINE_____ CHANGE_____
17 _____
18 REASON_____
19 PAGE_____ LINE_____ CHANGE_____
20 _____
21 REASON_____
22
23 _____   _____
24 WITNESS   Date
25

Page 293

74 (Pages 290 - 293)